

REMARKS

Reconsideration and allowance is requested in consideration of the following remarks and amendments. Claims 1-10 are currently pending in connection with the present application. Claims 1 and 5 are independent claims. By this Amendment, claims 4, 5, 7, and 8 have been amended for clarity purposes and to correct minor typographical errors. Claims 9 and 10 are newly added. There is no new matter. Applicants traverse the rejections set forth in the Office Action dated January 26, 2006.

Priority Documents

Applicants acknowledge and thank the Examiner for the acknowledgement of priority under 35 U.S.C. §119, and further thank the Examiner for the acknowledgement of receipt of all of necessary priority documents as shown in the Office Action dated January 26, 2006.

Information Disclosure Statements

Applicants thank the Examiner for the careful consideration of all of the references listed in the Information Disclosure Statements filed September 24, 2004 and December 23, 2004.

Drawings

Applicants acknowledge that the drawings filed on September 24, 2004 have been accepted.

Allowable Subject Matter

Applicants appreciate that claims 4, 7, and 8 are objected to as being dependent upon a rejected base claims but would be allowable if rewritten in independent form, including all of the features of the base claim and the intervening claims. Applicants note that these claims are allowable in their own right and not for any reasons set forth in the Office Action. However, it is

submitted that claims 1-3, 5 and 9-10 are also allowable in view of the following remarks.

Accordingly, claims 4, 7 and 8 are maintained in dependent form.

Description of an Example Embodiment

In accordance with the present application, FIG. 1(a) through 1(e) illustrate an example embodiment of a production method for an optical lens. FIG. 1(a) illustrates the edge portion of fiber wire 23 having a resin injection portion 29. In FIG. 1(b), a first resin is injected into the injection portion 29 using a resin injector. In FIG. 1(c), the first resin 26 is hardened by ultraviolet irradiation. Next, in FIG. 1(d), a second resin 27 is injected over the first hardened resin 26. Finally, in FIG. 1(e), the second resin is hardened. It is noted that a surface of the second resin 27 provides a protrusion shape, which is based on the weight and surface tension of the second resin 27.¹

PRIOR ART REJECTIONS

Double Patenting Rejection

Claim 1 stands provisionally rejected on the grounds of non-statutory, obvious-type double patenting as being unpatentable over claim 6 of co-pending Application No. 10/520,812.

As identified by the Examiner on page 4, line 4 of the Office Action, this rejection is a **provisional** rejection. Accordingly, as stated in the helpful examination guidelines of the MPEP § 804(I)(b)(1) “[i]f a ‘provisional’ nonstatutory obviousness-type double patenting (ODP) rejection is the only rejection remaining in the earlier filed of the two pending applications, while the later-filed application is rejectable on other grounds, the examiner should withdraw that

¹ Applicants’ specification, at least at page 12, lines 29-32.

rejection and permit the earlier-filed application to issue as a patent without a terminal disclaimer.”

Applicants note that the §371 acceptance letter mailed April 6, 2005, indicates that “THE DATE APPEARING ON THE FILING RECEIPT AS THE ‘FILING DATE’ IS THE DATE ON WHICH THE LAST OF THE 35 U.S.C. §371 ... REQUIREMENTS HAVE BEEN RECEIVED IN THE OFFICE ... the filing date of the above identified application is the international filing date of the international application”. The international filing date of the present application is March 26, 2003.

Further, Applicants note that the §371 acceptance letter for Application No. 10/520,812, mailed July 1, 2005, similarly indicates, “THE DATE APPEARING ON THE FILING RECEIPT AS THE ‘FILING DATE’ IS THE DATE ON WHICH THE LAST OF THE 35 U.S.C. §371 ... REQUIREMENTS HAVE BEEN RECEIVED IN THE OFFICE ... the filing date of the above identified application is the international filing date of the international application”. The international filing date of Application No. 10/520,812 is July 7, 2003.

Therefore, given that the international filing date of the present application is March 26, 2003 and precedes the international filing date of Application No. 10/520,812 by over three (3) months, Applicants submit that the non-statutory, obvious-type double patenting rejection should be withdrawn if this rejection is the only rejection remaining after the Examiner’s consideration of this Amendment, which is believed to place this application in condition for allowance.

35 U.S.C. §102(b) Watanabe Rejection

Claims 1-3 and 6 stand rejected under 35 U.S.C. §102(b) as being anticipated by Watanabe et al. (U.S. Patent No. 5,225,935). Applicants respectfully traverse this rejection.

Watanabe is directed to a method of making microlenses. The microlens 20 includes only a lens substrate 5 and a lens portion 4b.² The lens substrate 5 is boro-silicate glass, whereas the lens portion 4b is photosensitive resin arranged on the lens substrate. FIGS. 2A through 2E illustrate a method of producing the microlens 20. FIGS. 2A and 2B are directed to a forming a master 1. Master 1 is then eroded by dry-etching and oxidation, to form a stamper 2 used for shaping the lens portion 4b. FIGS. 2C through 2E illustrate how the stamper 2 is used to stamp a photo sensitive resin 4a to form the microlens 20. In particular, the photo sensitive resin layer 4a is stamped using the stamper 2 to shape the photo sensitive resin layer 4a, which is exposed to ultraviolet radiation in order to form a hardened photo sensitive resin 4b having a shape determined by the stamper 2. FIGS. 1A to 1E illustrate a similar method using stamper 2 to shape the lens portion 4b of the microlens. Once the microlens is formed, the microlens is attached to a main substrate 9a using a bonding layer 7. It is noted that the index of refraction of the photosensitive resin of the lens portion 4b and the index of refraction of the photosensitive resin of the bonding layer 7 must be different. Otherwise the microlens 20 would not function as a lens.³

In light of the teachings of Watanabe described above, Applicants respectfully submit that Watanabe fails to disclose, teach, or suggest “**injecting and hardening a first resin** into a resin-injection portion of a base body, ...; forming a pre-lens by **further injecting a second resin** on the hardened first resin; and forming a lens by **hardening the second resin**” as recited in independent claim 1. Applicants respectfully submit that Watanabe does not disclose teach or suggest a first injecting step, much less two injection steps. Still further, Applicants respectfully submit that a lens formed according to the method of claim 1 still functions as a lens even if the

² Watanabe, column 3, lines 28-30.

³ Watanabe, column 4, lines 26-28.

refraction index of the first resin and second resin are the same, which further distinguishes example embodiments of the present invention from the teachings of Watanabe.

In light of the above, Applicants respectfully submit that Watanabe fails to disclose, teach, suggest each and every feature of independent claim 1; and respectfully requests that the rejection of independent claim 1 and dependent claims 2-3 and 6-8, under 35 U.S.C. §102(b), be withdrawn

35 U.S.C. §103(a) Watanabe/Watanabe Rejection

Claim 5 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Watanabe et al. (U.S. Patent No. 5,225,935, hereinafter “Watanabe 1”) in view of Watanabe et al. (U.S. Patent No. 5,661,834, hereinafter “Watanabe 2”). Applicant respectfully traverses this rejection.

Initially, Applicants respectfully note that independent claim 5 recites features similar to the features identified above as patentably distinguishing independent claim 1 from Watanabe 1. Further, Applicants review of Watanabe 2 indicates that Watanabe 2 also fails to disclose, teach or suggest “**injecting and hardening a first resin** into a resin-injection portion ...; forming a pre-lens by **further injecting a second resin** on the hardened first resin; and forming a lens by **hardening the second resin**” as recited in independent claim 5.

Therefore, even assuming that Watanabe 1 and Watanabe 2 were combinable (which is not admitted), Applicants submit that Watanabe 2 fails to cure the deficiencies of Watanabe 1 with respect to the above-identified features of independent claim 5 for at least the same reasons as discussed above with respect to independent claim 1.

Therefore, Applicants respectfully requests that the rejection of claim 5, under 35 U.S.C. §103(a), be withdrawn.

NEW CLAIMS

Applicants submit that new claims 9 and 10 are also allowable for at least the same reasons as discussed above with respect to independent claim 1 from which newly added claims 9 and 10 depend. In particular, claim 9 specifies that a shape of the formed lens is based on a weight of the second resin and a surface tension of the second resin, and claim 10 specifies that a shape of the formed lens is created without using a stamper. The features of claims 9 and 10 further distinguish the claimed invention over the cited references.

CONCLUSION

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of claims 1-10 in connection with the present application is earnestly solicited.


Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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